IMAGE OF THE ISSUE

# Reversible Acute Duodenitis as a Complication of Endoscopic Biliary Stenting

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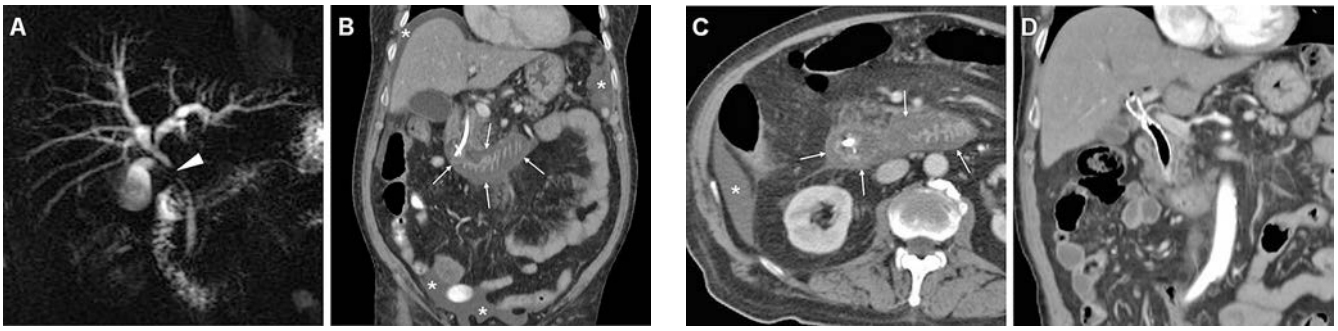


A 78-year-old diabetic male was admitted with jaundice, weight loss, and intermittent upper abdominal pain. Laboratory tests disclosed anaemia (haemoglobin 9.4 mg/dL), elevated C-reactive protein, serum bilirubin (17 mg/dl), transaminase and alkaline phosphatase levels. Following ultrasound confirmation of biliary dilatation, magnetic resonance cholangiopancreatography (MRCP) depicted a concentric stenosis of the proximal common bile duct (CBP) (arrowhead, Fig. 1A), with moderate upstream dilatation of common hepatic duct and intrahepatic branches, suggestive of a neoplastic nature. Endoscopy showed a normal-appearing Vaterian papilla, which was cannulated without the need for sphincterotomy. Contrast-medium injection confirmed the MRCP finding of CBD stricture causing upstream dilatation. After cytological brushing, a 10-cm 10-French plastic biliary stent was positioned, without immediate adverse events.

Twenty-four hours later the patient complained of acute diffuse abdominal pain, without signs of peritonitis at physical examination. Urgent contrast-enhanced multidetector CT (MDCT) showed correctly placed biliary stent, moderate ascites and marked circumferential mural thickening of the duodenum from the papilla to the Treitz angle with stratified appearance ("target sign") by enhanced mucosa and hypoattenuated oedematous submucosa (arrows), indicative of mucosal inflammation and oedematous submucosa (Figs. 1B, C), as well as minimal associated perivisceral fat inflammatory changes. Imaging findings and laboratory data were inconsistent with post-procedural acute pancreatitis, haemorrhage or duodenal perforation.

The patient promptly improved with conservative treatment, and jaundice was effectively relieved. Brush cytology diagnosed CBD adenocarcinoma. Paracentesis fluid analysis excluded infection and malignancy. Three weeks later, repeated ERCP showed a normal endoscopic aspect of the duodenum. To achieve long-term tumour palliation, the plastic biliary stent was removed and replaced with a self-expanding metal stent. Post-procedural MDCT showed self-expanding metal stent in place and imaging resolution of both biliary obstruction and acute duodenal inflammatory changes (Fig. 1D).

MDCT is by far the preferred imaging modality to promptly assess or exclude post-procedural complications after therapeutic ERCP, particularly to differentiate acute pancreatitis from duodenal perforation which may have similar clinical and laboratory manifestations [1-3]. Furthermore, MDCT currently provides the best non-invasive imaging of congenital, infectious-inflammatory, traumatic, iatrogenic and neoplastic duodenal disorders [4, 5]. In this patient, MDCT depicted extensive, reversible changes consistent with acute duodenitis after therapeutic ERCP with CBD brushing and plastic stent placement.

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**Conflicts of interest:** None to declare.

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